sacred institution in the public mind and credited with the "conquest" of variola in the United States. However, public reeducation, "dis-education," is a hazardous matter. The "anti's" of all persuasions will be filled with glee and will assert that vaccination has not been responsible for the decrease of this disease in this country at all. In these days, when oversimplification characterizes the news media dissemination of scientific information, this may lead to distrust regarding other forms of immunization which have also been authoritatively proposed as a necessity. It may lead to such questions as is there a communication gap or, worse, a conflict of interest? This might prove to be a threat to other immunizations which are so well established and beneficial.

2. We grant that routine vaccination should be continued for all health and hospital personnel. At this moment, a crash program for these persons is proposed, but it should not be forgotten that pediatric wards will be filled with unvaccinated children who will be at significant risk of contact with those with primary vaccination takes. Children under treatment with steroids or those with eczema or malignant disease, or with immune deficiencies (which group make up a large proportion of children in today's pediatric ward) will be at risk of exposure to these attendants. Eczema vaccinatum, often fatal, usually results from exposure of an eczematous child to a recently vaccinated contact. Health personnel probably should be vaccinated during vacations and not permitted to expose today's hospital patients who are especially vulnerable, including some adults and many children. This precaution has been largely ignored in the past.

3. Routine vaccination must be continued for those in the Armed Forces. A great many of the present recruits have been vaccinated in early childhood; for them, revaccination is a relatively benign procedure. In the future, primary vaccination in recruits will constitute a new hazard of severe reactions and late sequelae at a time when they are subjected to a number of other immunizations.

It has been proposed that attenuated or killed vaccine may be employed for these as a preliminary measure, but this product is not yet available, and will be hard to come by.

4. If a patient has imported smallpox, who will be responsible for the diagnosis? Most of today's physicians have not seen a single case; it is possible that suspicion of the diagnosis might be long deferred and permit the number of contacts to become extensive. A few years ago near-panic was set off by a misdiagnosed patient who was finally discovered to have chickenpox. More than 25 years ago, in the last imported case (in San Francisco from Asia) the patient died, shortly after arrival, with the diagnosis of purpura hemorrhagica. The final diagnosis was established only after several deaths among several doctors, nurses, the undertaker and other contacts in whom smallpox had developed.

5. Some physicians have asked whether a child who has now been vaccinated at the age of one year should be revaccinated on reaching school age in order to have his immunity prolonged. This is probably not a matter of great importance with this new recommendation for, once having a primary take, the child will have limited vulnerability to exposure and almost no risk of fatal smallpox.

The abandonment of smallpox vaccination will thus not put an end to all existing questions about this disease and immunization for it. Previously, vaccination was compulsory by legislation. The present statements from various authorities are simply recommendations to abandon compulsory vaccination. It will permit the physician to follow his personal judgment in a variety of situations but may make his defense difficult if unpleasant sequelae follow vaccination without any special indications.

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Multidisciplinary Teamwork In the Management of Childhood Cancer

THE ARTICLE IN THIS ISSUE by Finklestein and Gilchrist, "Recent Advances in Neuroblastoma," illustrates repeatedly the importance of new dimensions of multidisciplinary teamwork in the management of cancer.

Neuroblastoma is an important cancer of children, the therapy for which leaves much to be learned. It is a unique tumor in several respects. It is most common in early infancy; it has an impressive history of spontaneous regression, and its natural history is highly predictable when age of the patient, histopathologic classification and accurate clinical staging are considered.

It apparently has specific cellular antigenic components, and, like some trophoblastic tumors, it secretes characteristic metabolic products which can provide "markers" permitting detection of residual tumor following operation, occult metastasis, or early recurrence.

Finklestein and Gilchrist stress the importance of a complete patient evaluation before therapy, from which a multidisciplinary treatment plan can be developed. They propose "second look" surgical operation after a significant tumor-free interval, and they raise the intriguing possibility of immunotherapy for this tumor. They also wisely point out the special insights and experience required of radiation therapists who treat infants and children.

Their review places in perspective a cancer which demands the concerted skills of pathologist, bio-chemist, immunologist, radiologist, surgeon, radiation therapist, pediatric oncologist and family physician. The review presents lessons for all of these disciplines and for geneticists and embryologists as well.

During the past decade, substantial progress in treatment of childhood cancer has been made. The most favorable treatment programs for acute leukemia are expected to produce median survival of over four years, and apparent "cures" are being referred to with increasing confidence. Similarly, with childhood solid tumors the coordination of more aggressive, multidisciplinary therapeutic plans is leading to prolonged tumor-free survival and improved cure rates.

These encouraging results are not being obtained solely because of new therapeutic discoveries, nor are they being obtained by all who treat children with cancer. They are being seen at institutions where basic and clinical investigators have developed sophistication in combining their best skills and have systematically applied many pieces of useful information that have been gathered painstakingly from careful investigation.

Thus, while several years ago it mattered little where or by whom a child with cancer was treated, it has begun to matter a great deal. A child with a tumor now deserves evaluation by a team representing all of the disciplines that may have a role in developing the best therapeutic plan.

An appropriate evaluation of a child with a tumor and the development of an individualized plan of therapy will involve accurate histopathologic classification, clinical staging of extent of involvement, and often bio-chemical, immunologic, and isotopic examinations. The contributions to therapy and the appropriate timing of surgical operation, radiation therapy, chemotherapy and, soon, immunotherapy, must all be weighed in developing an optimal therapeutic plan. Moreover, the requirements for teamwork and co-ordination continue as the plan is carried out and new problems arise which also require varied skills.

Institutions expecting to provide good care for children with tumors should have such teams. Institutions that do not establish such teams should refer patients with cancer to those that do. Such teams are necessary to provide the multidisciplinary interaction that can now produce good outcome for some cancers. Patients with tumors which are refractory to current treatments, also should be referred to such institutions, since the accumulation of experience through co-ordinated multidisciplinary investigation provides the greatest opportunity for substantial improvement of current treatments that are still not good enough.

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Lymphocyte Tissue Culture In Transplant Surgery

TO USE LYMPHOCYTE or leukocyte tissue culture in the monitoring of human transplants is to apply a laboratory technique with many potential pitfalls in both interpretation and quantitation[1] to a complex clinical situation. Nevertheless, us-